

Application No.: 10/029,272
Amendment dated: September 17, 2003
Examiner: Josiah C. COCKS

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A counter-thermosyphon loop heat pipe solar collector, comprising:

a loop heat pipe including a working fluid in the an interior thereof, a pipe wall, and two sides formed respectively a heating side and a cooling side;

a heating apparatus mounted on the heating side;

a cooling apparatus mounted on the cooling side;

a partition mounted on the loop heat pipe on the heating side proximate proximate to the a bottom of the loop heat pipe for separating the interior of the loop heat pipe including the working fluid to an upper zone and a lower zone; and

a piping element vertically mounted on the partition and flowing through the partition with two opening ends respectively mounted on the upper zone and the lower zone, and being in parallel with the pipe wall of the loop heat pile.

2. (Currently Amended) The counter-thermosyphon loop heat pipe solar collector of as claimed in claim 1, wherein the cooling apparatus utilizes water or gas for cooling.

3. (Currently Amended) The counter-thermosyphon loop heat pipe solar collector of as claimed in claim 1, wherein the piping element has a top opening end attaching to a damper.

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4. (Currently Amended) The counter-thermosyphon loop heat pipe solar collector of as claimed in claim 1, wherein the piping element is a capillary that is in parallel with the ~~gravity~~ gravitational direction or forms an angle with the ~~gravity~~ gravitational direction.

5. (Currently Amended) The counter-thermosyphon loop heat pipe solar collector of as claimed in claim 3, wherein the piping element is a capillary.

a) 6. (Currently Amended) ~~The counter-thermosyphon~~ The counter-thermosyphon loop heat pipe solar collection of as claimed in claim 3, wherein the piping element is a narrow and elongated pipe.

7. (Currently Amended) The counter-thermosyphon loop heat pipe solar collector of as claimed in claim 1, wherein the loop heat pipe is formed in a rectangle shape.